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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/903,486 07/29/97 FORBES

L 303.326US1

EXAMINER

MMC2/1221

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MINTEL W

ART UNIT

PAPER NUMBER

2811

DATE MAILED:

12/21/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.

08/903486

Applicant(s)

Forbes

Examiner

William Mintel

Group Art Unit

2811

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

P r i d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 10/10/00

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-5, 8-15, 22, 24-29, 31-35 ^{37-48, 50-53} is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 11-15, 22, 24-29, 31-35 is/are allowed.

☒ Claim(s) 1-5, 8-10, 37-48, 50-53 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
 - ☐ received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 22
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halvis et al, (040) in view of the Admitted Prior Art..

In re claim 1, lines 1-5, the Abstract of Halvis at lines 1-4 discloses a polysilicon gate with 10% carbon. In re claim 1, line 5, column 4, lines 25-35, recite that the gates are interconnected to a driving voltage. Halvis lacks the underlying insulated portion of line 3, claim 1.

Applicant's specification at page 2, line 5, teaches SOI technology for polysilicon gate FET's. Therefore, in re claim 1, it would have been obvious to place the FET's of Halvis on an insulating layer in order to, for example, improve device insulation. In re claim 2, Halvis recites polysilicon. In re claims 8-10, column 4, lines 10-20, recites silicon dioxide 42 and column 4, line 3, recites silicon dioxide 32.

Claims 3-5, 37-48, 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halvis in view of the Admitted Prior Art as applied to claim 1, 2, 8-10 above, and further in view of Demichelis et al.

Halvis is described above but lacks explicit microcrystalline SiC. Demichelis at column 1, page 1327, lines 20-36, teaches microcrystalline SiC as having increased electrical conductivity without significantly changing the optical properties. Therefore, in re claim 3, it would have been

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obvious to replace the polycrystalline SiC of Halvis with microcrystalline SiC. In re claims 4-5, Demichelis at page 1327, k column 1, first paragraph, teaches p and n doped SiC as having increased electrical conductivity. Claims 37-48, 50-53 are rejected as above.

Claims 11-15, 22, 24-29, 31-35 are allowed over the art of record because the art does not disclose complementary FET's or memory devices using the claimed material.

Applicant's arguments with respect to claims 1-5, 8-10, 37-48, 50-53 have been considered but are moot in view of the new ground(s) of rejection.

Characterized as merely of background interest are the ten newly submitted references. Cited for SiC gates are Japan (191) + (960),

Any inquiry concerning this communication or earlier communications from the examiner should be directed to W. Mintel whose telephone number is (703) 308-4916. The examiner can normally be reached on M-Th from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas, can be reached on (703) 308-2772. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Mintel/tr

12-18-00

William Mintel

William Mintel
Primary Examiner
Art Unit 2811